Atlantic Targets & Marine Operations

Plastic Armored Vehicle Targets

Atlantic Targets & Marine Operations (ATMO) uses a low-cost, vacuum thermal-forming process to fabricate a variety of plastic armored vehicle targets. These surrogate targets support a wide range of RDT&E and training requirements. The Threat & Target Systems Department teams with the fleet, Joint National Training Center, Army, Air Force and Marine Corps in a multi-force effort to provide representative, low-cost target acquisition and prosecution training to the warfighter. To support this training, NAVAIR Solomons, part of ATMO, produces plastic replications of threat systems which accurately represent the visual recognition, infrared and radar signatures to adequately stress weapon systems sensors and the warfighter.

Many different types of full-scale, three-dimensional targets, adversarial and friendly, are currently produced: BRDM II Amphibious Scout Vehicle, SA-9 Gaskin, AT-5 Spandrel, T-72 Main Battle Tank, ZSU-23-4 Shilka, SA-6 Straight Flush, SA-6 Gainful, BMP-2, SA-20 Tombstone, 2S6 Tunguska, BTR-70, M2A2 Bradley, Stryker and HUMVEE.

Targets are low-cost, durable, mobile and threat-realistic. The vacuum thermal forming process uses 5/32-inch thick ABS plastic sheets. Sections are formed, then assembled to create a 3-D simulated target. The plastic is available in either olive or desert sand, or can be painted in camouflage colors. A metal coating of copper is normally applied to the plastic to create a representative radar cross section of the target. The vehicles are typically skid-mounted and can be easily towed through a land range or roadway by a pickup truck. Depending on the application, the vehicles can also be mounted on low-cost, low-profile wheeled trailers to further enhance mobility. The vehicles can be augmented to provide an infrared (IR) signature (engines running, barrel heated to simulate recent gunfire in the case of the T-72, etc.).

The targets can be crated, shipped and assembled on-site. Assembly instructions can be supplied or a team can be provided to assemble targets at the user's location.

T-72 tank used in RIMPAC Exercises

M2A2 Bradley

SA-20 Tombstone

BMD 2.5-D

for more information

(410) 326-3389/2422
www.navair.navy.mil/targets

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SA-6 Gainful

T-72 Main Battle Tank

The vacuum thermal forming process is not limited to the production of target vehicles. A number of other complex forms and shapes have been produced, such as an EA-6B Pod Hardback, radar corner reflectors, missile nose cones, mechanical pulley guards and maintenance oil drip pans. Top-downs represent threats in trenches or top view only requirements.

Several two-and-a-half dimensional targets are also available. These 2.5-D targets are designed to be indistinguishable from a 3-D unit at a distance of 100 meters and at angles deviating up to 10 degrees from a direct line-of-site with the target.

Locations where plastic armored vehicle targets are used for T&E or live fire exercises:

- NAS Patuxent River, Maryland
- Webster Field, Maryland
- Delamere Air Weapon Range, Australia
- Farallon De MeDinilla (FDM), Guam
- Okino Daito Jima (ODJ), Okinawa, Japan
- NAWCWD Point Mugu, California
- NAWCWD China Lake, California
- RedStone Arsenal, Alabama
- Pohakuloa Training Area (PTA), Hawaii
- Pacific MIssile Range Facility (PMRF), Hawaii
- Aberdeen Proving Grounds, Maryland
- Camp LeJeune, North Carolina
- Yuma Test Center, Arizona
- White Sands Missile Range, New Mexico
- Atlantic Field, North Carolina

BTR-70

2S6

BMP-2

Straight Flush

ZSU-23-4

BTR 2.5-D Frontal

BRDM II Amphibious Scout Vehicle

SA-9 Gaskin

Stryker